

Appl. No. 10/071,349  
Amdt. dated August 10, 2004  
Reply to Office action of March 24, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1 (currently amended): A method for identifying a CD8<sup>+</sup> suppressor molecule that has anti-HIV-1 activity, the method comprising:

- (a) contacting a host cell with a replication deficient HIV pseudotyped virus comprising a reporter gene operatively associated with an HIV promoter;
- (b) contacting the host cell with[[:]]
  - (i) a sample comprising enriched CD8<sup>+</sup> cells[[:]], or
  - (ii) a sample comprising a cell culture of CD8<sup>+</sup> cells[[:]], or
  - (iii) an extract or media component from (i) or (ii), or fraction thereof, or
  - (iv) a sample containing a recombinant product expressed from a cDNA library obtained from a CD8<sup>+</sup> suppressor cell producing a CD8<sup>+</sup> suppressor molecule; and
- (c) measuring reporter gene activity,  
wherein the reporter gene is expressed during early proviral gene expression; and wherein inhibition of reporter gene activity during a stage or stages of the pseudotyped viral replication cycle subsequent to viral entry, including but not later than the stage of early proviral gene expression, identifies the presence of a CD8<sup>+</sup> suppressor molecule that has anti-HIV-1 activity.

Claim 2 (currently amended): The method of Claim 1, wherein the reporter gene is expressed during early proviral gene expression wherein the inhibition of reporter gene activity occurs during a stage or stages selected from the group consisting of: integration of viral DNA, transactivation from a proviral state, export of tat into the host cell cytoplasm, transport of tat into the host cell nucleus, export of rev into the host cell cytoplasm, transport

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of rev into the host cell nucleus, tat-mediated enhancement of transcription, reverse transcription, and early gene expression.

Claim 3 (currently amended): The method of Claim [[2]]-1, wherein the reporter gene is expressed in place of an early proviral gene.

Claim 4 (original): The method of Claim 3, wherein the early proviral gene is *nef* gene.

Claim 5 (original): The method of Claim 1, wherein the pseudotyped virus is an *env* deficient pseudotyped virus.

Claim 6 (original): The method of Claim 5, wherein the pseudotyped virus is produced by a method comprising co-transfecting DNA for the pseudotyped virus with a vector that encodes a viral envelope protein.

Claim 7 (original): The method of Claim 6, wherein the viral envelope protein is an HIV Env protein.

Claim 8 (original): The method of Claim 6, wherein the viral envelope protein is a non-HIV viral envelope protein.

Claim 9 (original): The method of Claim 1, wherein the reporter gene is a luciferase gene, a chloramphenicol acetyltransferase gene, a growth hormone gene, or a fluorescent protein gene.

Claim 10 (original): The method of Claim 9, wherein the reporter gene is a luciferase gene.

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Claim 11 (currently amended): A method for identifying a CD8<sup>+</sup> suppressor molecule that has anti-HIV-1 activity, said the method comprising:

- (a) contacting a host cell with an env Env deficient HIV pseudotyped virus comprising a reporter gene substituted for an HIV *nef* gene such that said the reporter gene is expressed in place of the HIV *nef* gene;
- (b) contacting the host cell with[[::]]
  - (i) a sample comprising enriched CD8<sup>+</sup> cells[[;]], or
  - (ii) a sample comprising a cell culture of CD8<sup>+</sup> cells[[;]], or
  - (iii) an extract or media component from (i) or (ii), or fraction thereof [[; and]] , or
  - (iv) a sample containing a recombinant product expressed from a cDNA library obtained from a CD8<sup>+</sup> suppressor cell producing a CD8<sup>+</sup> suppressor molecule; and
- (c) measuring reporter gene activity,  
wherein the reporter gene is expressed during early proviral gene expression; and  
wherein inhibition of reporter gene activity during a stage or stages of the pseudotyped viral replication cycle subsequent to viral entry, including but not later than early proviral gene expression, identifies the presence of a CD8<sup>+</sup> suppressor molecule that has anti-HIV-1 activity.

Claim 12 (original): The method of Claim 11, wherein the reporter gene is a luciferase gene, a chloramphenicol acetyltransferase gene, a growth hormone gene, or a fluorescent protein gene.

Claims 13 (original): The method of Claim 12, wherein the reporter gene is a luciferase gene.

Claims 14-47 (canceled)

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Claim 48 (currently amended): The method of any one of ~~claims~~ Claims 1-13 and 49, wherein step (b) and step (c) are performed at one or more time intervals within 48 hours following step (a), wherein the one or more time intervals corresponds corresponding to one or more stages of the HIV pseudotyped virus life cycle, further and wherein inhibition of reporter gene activity during a stage of the virus life cycle indicates antiviral activity of the CD8<sup>+</sup> suppressor molecule in the stage.

Claim 49 (new): The method of Claim 11, wherein the inhibition of reporter gene activity occurs during the stage or stages of the virus life cycle selected from the group consisting of: integration of viral DNA, transactivation from a proviral state, export of tat into the host cell cytoplasm, transport of tat into the host cell nucleus, export of rev into the host cell cytoplasm, transport of rev into the host cell nucleus, tat-mediated enhancement of transcription, reverse transcription, and early gene expression.

Claim 50 (new): The method of Claim 48, wherein the inhibition of reporter gene activity occurs during the stage or stages of the virus life cycle selected from the group consisting of: integration of viral DNA, transactivation from a proviral state, export of tat into the host cell cytoplasm, transport of tat into the host cell nucleus, export of rev into the host cell cytoplasm, transport of rev into the host cell nucleus, tat-mediated enhancement of transcription, and reverse transcription.